

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listing, of claims in the application:

Listing of Claims:

1. (Currently Amended) A method comprising:

receiving by a client device, from a remote server, a plurality of display state definitions defining a plurality of instantiations of an user interface of an application for a plurality of ~~corresponding~~ display states of the user interface, with at least one of the plurality of instantiations of the user interface corresponding to a multidimensional display state, the at least one instantiation defined by two or more of the plurality of display state definitions each display state definition having one or more display cell definitions correspondingly defining one or more display cells of an instantiation of the user interface, with each display cell definition defining content of the corresponding display cell, and at least one of the display cell definition having a transition rule defining a next display state of the user interface to transition to, when a user interacts with the content of the display cell;

determining locally by the client device, a ~~next~~ current display state of the user interface, based at least in part on the transition rule of a display cell definition of a display cell which content was interacted by the user; and

provisioning by the client device, a ~~next~~ current instantiation of said user interface in accordance with one or more of the display state definitions associated with the determined ~~next~~ current display state.

2. (Cancelled)

3. (Currently Amended) The method of claim 145, wherein said provisioning comprises generating by said client device a first display cell of the ~~next~~ current instantiation of the user

interface in accordance with a first of said one or more display cell definitions of one of said one or more display state definitions associated with said ~~next-current~~ display state.

4. (Currently Amended) The method of claim 3, wherein said provisioning further comprises generating by said client device ~~another~~ a second display cell of the ~~next-current~~ instantiation of the user interface in accordance with ~~another~~ a second of said one or more display cell definitions of the same or another of said one or more display state definitions associated with said ~~next-current~~ display state.

5. (Currently Amended) The method of claim 1, wherein said provisioning comprises generating by said client device a portion of the ~~next-current~~ instantiation of the user interface with constituting contents inherited from a pseudo instantiation of the user interface.

6. (Previously Presented) The method of claim 1, wherein said current display state is multi-dimensional.

7. (Previously Cancelled)

8. (Previously Cancelled)

9. (Previously Cancelled)

10. (Currently Amended) A method comprising:

provisioning locally by a client device a first instantiation of a user interface of an application for a current display state of the user interface in accordance with at least a first one or more of a plurality of display state definitions defining a plurality of instantiations of the user interface, including the first instantiation, of the user interface for a plurality of display states of

the user interface, including said current display state, with at least one of the plurality of instantiations of the user interface corresponding to a multidimensional display state, the at least one instantiation defined by two or more of the plurality of display state definitions, of the user interface, each of said with the at least first one of the more plurality of display state definitions including one or more display cell definitions correspondingly defining one or more display cells of the first instantiation of the user interface, with at least one of the one or more display cell definitions having a transition rule defining a next display state to transition to, when the content of the display cell is interacted with by a user;

determining locally by said client device ~~that~~ the display state of the user interface to be said next display state based on a user's interaction with the content of the display cell of the first instantiation of the user interface, and in accordance with said corresponding display cell definition of the display cell; and

provisioning by the client device the next instantiation of the user interface corresponding to the determined next display state of the user interface, in accordance with at least a second one or more of the plurality of display state definitions, separate and distinct at least partially from said first one or more display state definitions, defining at least partially the next instantiation of the user interface.

11. (Currently Amended) A method comprising:

transmitting by a server to a remote client device, a plurality of display state definitions defining a plurality of instantiations of a user interface of an application for a plurality of display states of the user interface, with at least one of the plurality of instantiations of the user interface corresponding to a multidimensional display state, the at least one instantiation defined by two or more of the plurality of display state definitions, and at least one of the plurality of display state definitions including one or more display cell definitions specifying constituting contents for one or more corresponding display cells of at least one of the plurality of instantiations of the user interface~~first one or more display state definitions defining a first instantiation of the a user~~

~~interface of an application for a first display state of the user interface, each of the first one or more display state definitions including first one or more display cell definitions correspondingly specifying first constituting contents for first one or more display cells of the first instantiation of the user interface, with at least one of the first one or more display cell definitions including a first transition rule specifying a first next display state to transition to, when a user interacts with the content of the corresponding display cell; and~~

~~—transmitting by the server to said remote client device, said first-constituting contents for said first one or more display cells for rendering said first an instantiation of the plurality of instantiations of said user interface on said remote client device in accordance with said first one or more display state cell definitions;~~

~~—transmitting further in advance by the server to said remote client device, second one or more display state definitions, separate and distinct at least partially from said first one or more display state definitions, defining a corresponding second instantiation of the user interface for a second display state of the user interface, each of said second one or more display state definitions having second one or more display cell definitions specifying second constituting contents for second one or more display cells for the second instantiation of the user interface, with at least one of the second one or more display cell definitions including a second transition rule specifying a second next display state to transition to, when a user interacts with the content of the corresponding display cell; and~~

~~transmitting further in advance by the server to said remote client device, said second constituting contents for said second one or more display cells for rendering said second instantiation of said user interface on said remote client device in accordance with said second one or more display state definitions.~~

12. (Currently Amended) The method of claim 11, wherein the method further comprising:

~~transmitting by the server to said remote client device, third-constituting contents are constituting contents of a pseudo instantiation of said the user interface to be inherited during at least a selected one of said rendering.~~

13. (Cancelled)

14. (Cancelled)

15. (Currently Amended) An article of manufacture comprising:

a storage medium; and

a plurality of programming instructions stored in the storage medium and configured to implement a user interface provision function equipped to receive from a remote server a plurality of display state definitions defining a plurality of instantiations of a user interface of an application for a plurality of display states of the user interface, with at least one of the plurality of instantiations of the user interface corresponding to a multidimensional display state, the at least one instantiation defined by two or more of the plurality of display state definitions, to determine a current display state of the user interface, and to provision a current instantiation of said user interface in accordance with one or more of the display state definitions associated with the determined current display state~~determine a current display state for a user interface of an application, and to provision a current instantiation of said user interface in accordance with first one or more display state definitions associated with the determined current display state, to determine a next display state for the user interface in accordance with a transition rule of a display cell definition of a display state definition, the display cell definition further defining content of a display cell interacted by a user, and to provision a next instantiation of said user interface in accordance with second one or more display state definitions, separate and distinct at least partially from the first one or more display state definitions, defining the next instantiation of the user interface corresponding to the determined next display state.~~

16. (Previously Cancelled)
17. (Cancelled)
18. (Cancelled)
19. (Previously Presented) The article of claim 15, wherein said programming instructions equip said user interface provision function to perform said provisioning of the current instantiation of the user interface, by generating a portion of the current instantiation of the user interface with constituting contents inherited from a pseudo instantiation of the user interface.
20. (Previously Presented) The article of claim 15, wherein said current display state is multi-dimensional.
21. (Previously Presented) The article of claim 15, wherein the user interface provision function is a part of a selected one of a browser and an operating system.
22. (Previously Cancelled)
23. (Previously Cancelled)
24. (Previously Cancelled)
25. (Currently Amended) An article of manufacture comprising:
a storage medium; and

a plurality of programming instructions stored in the storage medium and configured to implement a user interface provision function equipped to

provision a first instantiation of a user interface of an application for a current display state of the user interface in accordance with at least a first one of a plurality of display state definitions defining a plurality of instantiations of the user interface, including the first instantiation, for a plurality of display states of the user interface, including said current display state, with at least one of the plurality of instantiations of the user interface corresponding to a multidimensional display state, the at least one instantiation defined by two or more of the plurality of display state definitions of the user interface, with the at least first one of the plurality of display state definitions including one or more display cell definitions correspondingly defining one or more display cells of the first instantiation of the user interface, with at least one of the one or more display cell definitions having a transition rule defining a next display state to transition to, when the content of the display cell is interacted with by a user;

determining the display state of the user interface to be said next display state based on a user's interaction with the content of the display cell of the first instantiation of the user interface, and in accordance with said corresponding display cell definition of the display cell; and

provisioning the next instantiation of the user interface corresponding to the determined next display state of the user interface, in accordance with at least a second one of the plurality of display state definitions defining at least partially the next instantiation of the user interface. ~~provision a first instantiation of a user interface of an application in accordance with first one or more display state definitions defining the first instantiation of the user interface corresponding to a current display state of the user interface, to determine a next display state of the user interface based on a transition rule of a display cell definition which also defines content of a display cell of the first instantiation of the user interface a user's interacted with, and to provision a next~~

~~instantiation of the user interface in accordance with second one or more display state definitions, separate and distinct at least partially from the first display state definition, defining the next instantiation of the user interface corresponding to the next display state of the user interface.~~

26. (Currently Amended) An application server comprising:

a processor; and

a plurality of programming instructions executed by the processor to implement a user interface provision function equipped to transmit to a remote client device,

a plurality of display state definitions defining a plurality of instantiations of a user

interface of an application for a plurality of display states of the user interface,

with at least one of the plurality of instantiations of the user interface

corresponding to a multidimensional display state, the at least one instantiation

defined by two or more of the plurality of display state definitions, and at least

one of the plurality of display state definitions including one or more display cell

definitions specifying constituting contents for one or more corresponding display

cells of at least one of the plurality of instantiations of the user interface; and

said constituting contents for said one or more display cells for rendering an instantiation

of the plurality of instantiations of said user interface on said remote client device

in accordance with said one or more display cell definitions~~first one or more~~

~~display state definitions specifying a first instantiation of an user interface of an~~

~~application corresponding to a first display state of the user interface, each of the~~

~~first one or more display state definitions having first one or more display cell~~

~~definitions correspondingly defining first constituting contents of first one or~~

~~more display cells of the first instantiation of the user interface, with at least one~~

~~of the display cell definition further having a transition rule specifying a second~~

~~display state to transition to, when a user interacts with the contents of the corresponding one of the first one or more display cells, and said first constituting contents for said first plurality of display cells for rendering said first instantiation of the user interface on said remote client device in accordance with said first one or more display state definitions, wherein the user interface provision function is further equipped to transmit in advance to said remote client device, second one or more display state definitions, separate and distinct at least partially from the first one or more display state definitions, specifying a second instantiation of the user interface corresponding to a second display state of the user interface, to be rendered in response to a user interaction with the content of said first display cell of said first instantiation of the user interface, each of the second one or more display state definitions having second one or more display cell definitions correspondingly defining second constituting contents of second one or more display cells of the second instantiation of the user interface, with at least one of the second one or more display cell definitions further having a transition rule specifying the first or a third display state to transition to, when a user interacts with the contents of the corresponding one of the second one or more display cells, and said second constituting contents for said second plurality of display cells for rendering said second instantiation of the user on said remote client device in accordance with said second display state definition in the event said user interaction occurs.~~

27. (Currently Amended) The application server of claim 26, wherein the plurality of programming instructions further equip the user interface provision function to be able to transmit to said remote client device, constituting contents are constituting contents of a pseudo instantiation of the user interface to be inherited during said rendering, constituting content of a

~~pseudo instantiation of said user interface to be inherited in at least a selected one of said rendering of said first and said second instantiation of said user interface.~~

28. (Cancelled)

29. (Cancelled)

30. (Currently Amended) A client device comprising:

a storage medium having stored therein a plurality of programming instructions to implement a user interface provision function equipped to receive from a remote server ~~one or more~~ a plurality of display state definitions defining a first plurality of instantiations of an user interface of an application corresponding to a plurality of display states of the user interface, with at least one of the plurality of instantiations of the user interface corresponding to a multidimensional display state, the at least one instantiation defined by two or more of the plurality of display state definitions ~~each of the one or more display state definitions having one or more display cell definitions correspondingly defining constituting contents of one or more display cells of the instantiation of the user interface, with at least one of the one or more display cell definitions further having a transition rule specifying a next display state to transition to, when a user interacts with the contents of the corresponding display cell, to determine a next current display state of the user interface, and to provision a next-current instantiation of said user interface in accordance with second one or more of the display state definitions associated with the determined next-current display state of the user interface; and~~

a processor coupled to the storage medium to execute the programming instructions.

31. (Cancelled)

32. (Cancelled)

33. (Cancelled)

34. (Currently Amended) The client device of claim 30, wherein said programming instructions equip said user interface provision function to perform said provisioning of the current instantiation of the user interface, by generating a portion of the ~~first~~current instantiation of the user interface with constituting contents inherited from a pseudo instantiation of the user interface.

35. (Previously Presented) The client device of claim 30, wherein said current display state is multi-dimensional.

36. (Previously Presented) The client device of claim 30, wherein the client device is a device selected from a group consisting of a wireless telephone, a palm sized computing device, and a notebook sized computing device.

37. (Previously Cancelled)

38. (Previously Cancelled)

39. (Previously Cancelled)

40. (Currently Amended) A client device comprising:
a storage medium having stored therein a plurality of programming instructions to implement a user interface provision function equipped to
provision a first instantiation of a user interface of an application for a current display state of the user interface in accordance with at least a first one of a plurality of

display state definitions defining a plurality of instantiations of the user interface, including the first instantiation, for a plurality of display states of the user interface, including said current display state, with at least one of the plurality of instantiations of the user interface corresponding to a multidimensional display state, the at least one instantiation defined by two or more of the plurality of display state definitions of the user interface, with the at least first one of the plurality of display state definitions including one or more display cell definitions correspondingly defining one or more display cells of the first instantiation of the user interface, with at least one of the one or more display cell definitions having a transition rule defining a next display state to transition to, when the content of the display cell is interacted with by a user,

determining the display state of the user interface to be said next display state based on a user's interaction with the content of the display cell of the first instantiation of the user interface, and in accordance with said corresponding display cell definition of the display cell, and

provisioning the next instantiation of the user interface corresponding to the determined next display state of the user interface, in accordance with at least a second one of the plurality of display state definitions defining at least partially the next instantiation of the user interface
~~provision a first instantiation of a user interface corresponding to a first display state in accordance with first one or more display state definitions defining the first instantiation of a user interface, to determine a next display state of the user interface based on a user's interaction with content of a first display cell of the first instantiation of the user interface and in accordance with a transition rule of a first display cell definition of one of said first one or more display state definitions, the first display cell definition defining said content of the first display cell, and the transition rule specifying a next display state of the user interface to be transitioned to, in the event of user interaction with the content of the first display cell, and to provision a next instantiation of the user interface corresponding to the next display state in accordance~~

~~with second one or more display state definitions, separate and distinct at least partially from said first one or more display state definitions, defining the second instantiation of the user interface; and~~

a processor coupled to the storage medium to execute the programming instructions.

41. (Currently Amended) A server comprising:

a storage medium having stored therein a plurality of programming instructions to implement a user interface provision function equipped to transmit to a remote client device, a plurality of display state definitions defining a plurality of instantiations of a user interface of an application for a plurality of display states of the user interface, with at least one of the plurality of instantiations of the user interface corresponding to a multidimensional display state, the at least one instantiation defined by two or more of the plurality of display state definitions, and at least one of the plurality of display state definitions including one or more display cell definitions specifying constituting contents for one or more corresponding display cells of at least one of the plurality of instantiations of the user interface, and said constituting contents for said one or more display cells for rendering an instantiation of the plurality of instantiations of said user interface on said remote client device in accordance with said one or more display cell definitions~~a first display state definition having at least a first display cell definition specifying first constituting contents for a first display cell of a first instantiation of a user interface while the user interface in a first display state, and the first constituting contents for said first display cell for rendering said first instantiation of the user interface on said remote client device in accordance with at least said first display state definition, the first display cell further having a transition rule specifying a second display state to transition to, when a user interacts with the content of the first display cell, and to transmit further in advance to said remote client device, a second~~

~~display state definition, separate and distinct at least partially from said first display state definition, specifying second constituting contents for a second display cell of a second instantiation of the user interface corresponding to a second display state of the user interface to be rendered in response to a first user interaction with the content of said first display cell of said first instantiation of the user interface leading to the second display state of the user interface, and said second constituting contents for said second plurality of display cells for rendering said second instantiation of the user interface on said remote client device in accordance with at least said second display state definition in the event said first user interaction occurs; and~~

at least one processor coupled to the storage medium to execute the programming instructions.

42. ~~(Currently Amended) The server of claim 41, wherein the plurality of programming instructions further equip the user interface provision function to transmit to said remote client device, constituting contents are constituting contents of a pseudo instantiation of the user interface to be inherited during said rendering, constituting content of a pseudo instantiation of said user interface to be inherited in at least a selected one of said rendering of said first and said second instantiations of said user interface.~~

43. (Cancelled)

44. (Cancelled)

45. (New) The method of claim 1, wherein each display state definition has one ore more display cell definitions correspondingly defining one or more display cells of a corresponding instantiation of the user interface, and said determining is locally made by said client device in

accordance with a second display cell definition of a second of the display state definitions of the user interface for a second rendered display cell of an immediately preceding instantiation of the user interface for corresponding to an immediately preceding display state of an immediately preceding instantiation of the user interface, with which corresponding display cell a user interacted, said second display cell definition including a state transition rule specifying the current display state as the display state of the user interface in the event a user interacts with the corresponding second rendered display cell.

46. (New) The method of claim 11, wherein at least one of the one or more display cell definitions comprises a display state transition rule correspondingly specifying a display state of the user interface to be transitioned to in the event of various user interactions with the corresponding at least one of the one or more display cells.

47. (New) The article of claim 15, wherein each of said plurality of display state definitions has one or more display cell definitions correspondingly defining one or more display cells of a corresponding instantiation of the user interface, and said programming instructions further equip said user interface provision function to make said determination in accordance with a second display cell definition of a second of the display state definitions of the user interface for a second rendered display cell of an immediately preceding instantiation of the user interface for corresponding to an immediately preceding display state of an immediately preceding instantiation of the user interface, with which corresponding display cell a user interacted, said second display cell definition including a state transition rule specifying the current display state as the display state of the user interface in the event a user interacts with the corresponding second rendered display cell.

48. (New) The article of claim 47, wherein said programming instructions further equip said user interface provision function to perform said provisioning of the current instantiation of the

user interface, by generating a first display cell of the current instantiation of the user interface in accordance with a first of said one or more display cell definitions of one of said one or more display state definitions associated with said current display state.

49. (New) The article of claim 48, wherein said programming instructions further equip said user interface provision function to perform said provisioning of the current instantiation of the user interface, by generating a second display cell of the current instantiation of the user interface in accordance with a second of said one or more display cell definitions of the same or another of said one or more display state definitions associated with said current display state.

50. (New) The application server of claim 26, wherein at least one of the one or more display cell definitions comprises a display state transition rule correspondingly specifying a display state of the user interface to be transitioned to in the event of various user interactions with the corresponding at least one of the one or more display cells.

51. (New) The client device of claim 30, wherein each of said plurality of display state definitions has one or more display cell definitions correspondingly defining one or more display cells of a corresponding instantiation of the user interface, and said programming instructions further equip said user interface provision function to make said determination in accordance with a second display cell definition of a second of the display state definitions of the user interface for a second rendered display cell of an immediately preceding instantiation of the user interface for corresponding to an immediately preceding display state of an immediately preceding instantiation of the user interface, with which corresponding display cell a user interacted, said second display cell definition including a state transition rule specifying the current display state as the display state of the user interface in the event a user interacts with the corresponding second rendered display cell.

52. (New) The client device of claim 51, wherein said programming instructions further equip said user interface provision function to perform said provisioning of the current instantiation of the user interface, by generating a first display cell of the current instantiation of the user interface in accordance with a first of said one or more display cell definitions of one of said one or more display state definitions associated with said current display state.

53. (New) The client device of claim 52, wherein said programming instructions further equip said user interface provision function to perform said provisioning of the current instantiation of the user interface, by generating a second display cell of the current instantiation of the user interface in accordance with a second of said one or more display cell definitions of the same or another of said one or more display state definitions associated with said current display state.

54. (New) The server of claim 41, wherein at least one of the one or more display cell definitions comprises a display state transition rule correspondingly specifying a display state of the user interface to be transitioned to in the event of various user interactions with the corresponding at least one of the one or more display cells.